Agenda for the 13th meeting of the Biosafety Committee of the University of Hong Kong. (A sub-committee of the Safety Health and Environment Committee).

To be held on Thursday, October 9th 2014, 11.00 a.m. Room 412 at Professorial Block, Queen Mary Hospital.

1. Minutes of the 11th meeting of the Biosafety Committee (October 3rd 2013)
The minutes of the previous (11th) meeting of the Biosafety Committee were circulated in March 2014 and members approved them by e-mail. For completeness they are attached as Appendix 1.

2. Matters arising from the minutes of the 11th meeting (action points etc.)

3. Review of guidance on handling clinical samples
In the last six months there have been three incidents in the University involving blood samples. Two occurrences involved splashes in the eye and the third an accidental needlestick injury. The Safety Office has issued a "Safety Matters" circular to highlight the issues involved (Appendix 2) and as the University guidance on handling clinical specimens (Appendix 3) was approved in January 2009 it seems appropriate for the committee to review and update the policy if appropriate.

The secretary would particularly welcome comment on the format of the document which is rather non-prescriptive/open ended and leaves readers to work out the risk of particular samples for themselves. Would it be useful to include the standard protective procedures outlined in the safety matters circular? Is it worth simplifying the title? What is the committees view on the use of safer needle devices? Should we encourage their use in the University?

4. Biosafety level 2
Over the past several years the Biological Safety Officer has been asked to comment on many laboratories and their suitability for being designated Biosafety Level 2 (BSL2) laboratories. Appendix 4 is intended as guidance on BSL-2 and includes a summary of the physical structure, procedures and safety equipment needed for BSL2. It also contains guidance on what to do in the event of a spill within the area.

The committee are asked for their views on what else might be included. Would the outline of a standard operating procedure for a BSL2 facility be valuable? Would checklists to allow departments to determine if their laboratories and management procedures meet the requirements of BSL2 be useful?

5. Incidents at US Centers for Disease Control (CDC) and their response –what can we learn?
Two separate incidents at the CDC occurred in March and June. In the first, a sample of a low-virulence influenza virus was transferred to another laboratory and it was subsequently discovered that it had been accidentally contaminated with the lethal H5N1 avian flu strain. The second incident involved the transfer of potentially inadequately

inactivated anthrax bacteria from a biosafety-level-3 laboratory to a lab with a lower safety level that was not equipped to handle such a dangerous pathogen.

CDC published a report on the incidents (Appendix 5, also see Appendix 5a, a Nature news and reviews article) and announced the creation of an independent committee to review the agency's safeguards. Safety culture is among the topics the committee will discuss when it meets for the first time next month.

These incidents have triggered a series of events, including a US Congressional Hearing addressing the CDC Anthrax incident, issuance of a subsequent GAO (Government Accountability Office) report, and an initiation of an investigation by the Energy and Commerce Committee (a legislative committee in the US House of Representatives) regarding the handling of select agents by federal laboratories including CDC, FDA and NIH (investigation in progress). These events are important to understand because they are being used to justify more stringent regulations and oversight across both the public and private sectors in the US. This is likely to have a knock on consequence for those working on infectious agents, particularly of higher hazard, in Hong Kong.

NIH has designated September as National Biosafety Stewardship Month (See Appendix 5b).

Committee members are invited to comment on the actions grantee institutions and/or contractors are encouraged to undertake.

6. More controversy over gain of function experiments (for information)
In recent months the controversy over GOF experiments has been rekindled by reports of the generation of new influenza viruses that are similar to the 1918 strain (Appendix 6) and further fueled by two laboratory accidents at the Centers for Disease Control that heightened concern about accidental escape of laboratory strains with pandemic potential (Agenda point 5). With this backdrop, GOF experiments have been severely criticized in the general media (for example article in UK press Appendix 6a), and 18 individuals signed a statement of concern involving influenza virus GOF experiments (http://www.cambridgeworkinggroup.org/). The essence of this statement was a call for curtailment of such experiments, during which time there could be a risk-benefit analysis of future work and the convening of a conference to discuss the many issues involved in this developing situation. A group called Scientists for Science posted its own statement with a somewhat different emphasis promoting the view of the importance of research on potentially dangerous pathogens and also calling for a conference to discuss the issues (http://www.scientistsforscience.org/). An editorial in mBio (included as Appendix 6b) has a useful and balanced summary of the issues involved.

We discussed at our previous meeting in October 2013 a greater scrutiny of this type of experiment (particularly in relation to work with H7N9). Subsequently CDC have issued guidance on the requirements for safe working with H7N9 (Interim Risk Assessment and Biosafety Level Recommendations for Working with Influenza A (H7N9) viruses

www.cdc.gov/fl u/avianflu/h7n9/risk-assessment.htm). All of HKU's BSL3 laboratories meet these requirements.

7. Incident at the US National Institutes of Health (NIH) - Bethesda (for information)
In July biological samples were found in the cold storage area of U.S. Food and Drug Administration laboratories on the National Institutes of Health campus. The FDA found 12 boxes containing a total of 327 carefully packaged vials labeled with names of various biological agents such as dengue, influenza, Q fever, and rickettsia. This included six vials labeled "variola" (the causative agent of smallpox) along with ten other samples with unclear labeling. These vials containing smallpox were subsequently shown to be viable despite probably being collected between 1948 and 1964. For an updated FDA statement see:-.
http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm405434.htm

The American Society of Microbiology has issued a Public Affairs statement entitled "What is in your Laboratory Freezer?" (https://www.asm.org/index.php/publicpolicy-2/statements-testimony/99-policy/policy/93059-freezer-8-14) urging all laboratories to review and update their storage of infectious agents.

Members may remember the issue of inventories was discussed in March 2012 and a letter sent to Heads of Departments recommending inventories for agents that require BSL2 containment in addition to detailed and thorough inventories of agents that require BSL3 containment.

8. New infectious agents acquired by HKU staff (for information)
While there are likely to be many agents acquired by staff that the Safety Office knows nothing about the following 4 agents are brought to the committee's attention because of their diversity and general interest:- Alphavirus vectors that express the genes for producing induced pluripotent stem cells, Rhesus rotavirus used in a murine model of biliary atresia, *Listeria monocytogenes* a bacteria and the causative agent of a food-borne illness, and several variants of a parasite, some species of which cause sleeping sickness (Trypanosomes).

9. Dates of next meetings.
The next two Biosafety Committee meetings have been tentatively scheduled for 12th March 2015 and the 8th October 2015. These dates are intended to be flexible and will be confirmed nearer the time with committee members by e-mail.